

NTE177 General Purpose Silicon Rectifier

Description:

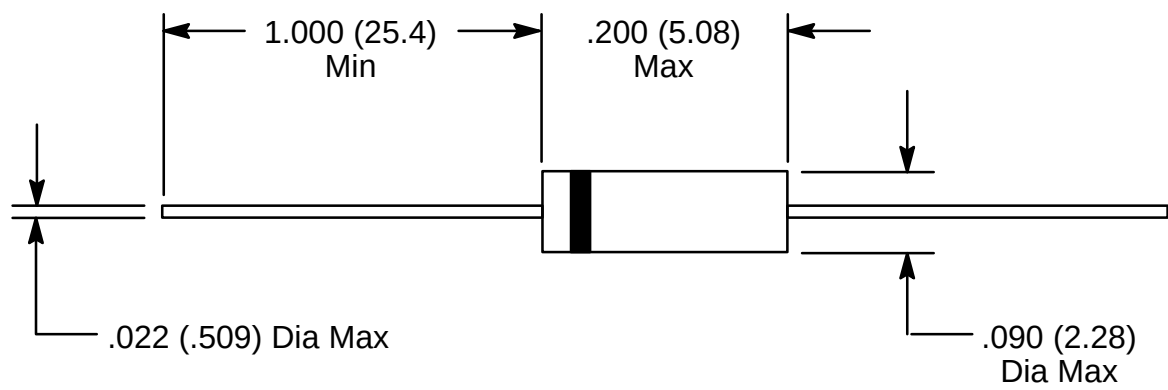
The NTE177 is a general purpose silicon rectifier in a DO35 case designed for switching applications.

Absolute Maximum Ratings:

Continuous Reverse Voltage, V_R	150V
Peak Repetitive Reverse Voltage, V_{RRM}	200V
Forward DC Current, I_F	250mA
Average Forward Current, $I_{F(AV)}$	250mA
Repetitive Peak Forward Current, I_{FRM}	625mA
Non-Repetitive Peak Forward Current, I_{FSM}	
($t < 1s$, $T_J = +25^\circ C$)	1A
($t = 1\mu s$, $T_J = +25^\circ C$)	5A
Total Power Dissipation ($T_A = +25^\circ C$), P_{tot}	400mW
Operating Junction Temperature, T_J	+175°C
Storage Temperature Range, T_{stg}	-65° to +175°C
Maximum Thermal Resistance, Junction-to-Ambient, R_{thJA}	+375°C

Electrical Characteristics: ($T_J = +25^\circ C$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Instantaneous Forward Voltage Drop	V_F	$I_F = 100mA$	—	—	1.0	V
		$I_F = 200mA$	—	—	1.25	V
Reverse Current	I_R	$V_R = 150V$	—	—	100	nA
		$V_R = 150V$, $T_J = +150^\circ C$	—	—	100	μA
Breakdown Voltage	$V_{(BR)R}$	$I_R = 100\mu A$	200	—	—	V
Diode Capacitance	C_d	$V_R = 0$, $f = 1MHz$	—	1.5	5.0	pF
Differential Forward Resistance	r_i	$I_F = 10mA$	—	5	—	Ω
Reverse Recovery Time	t_r	When switched from $I_F = 30mA$ to $I_R = 30mA$, $R_L = 100\Omega$, measured at $I_R = 3mA$	—	—	50	ns



Color Band Denotes Cathode